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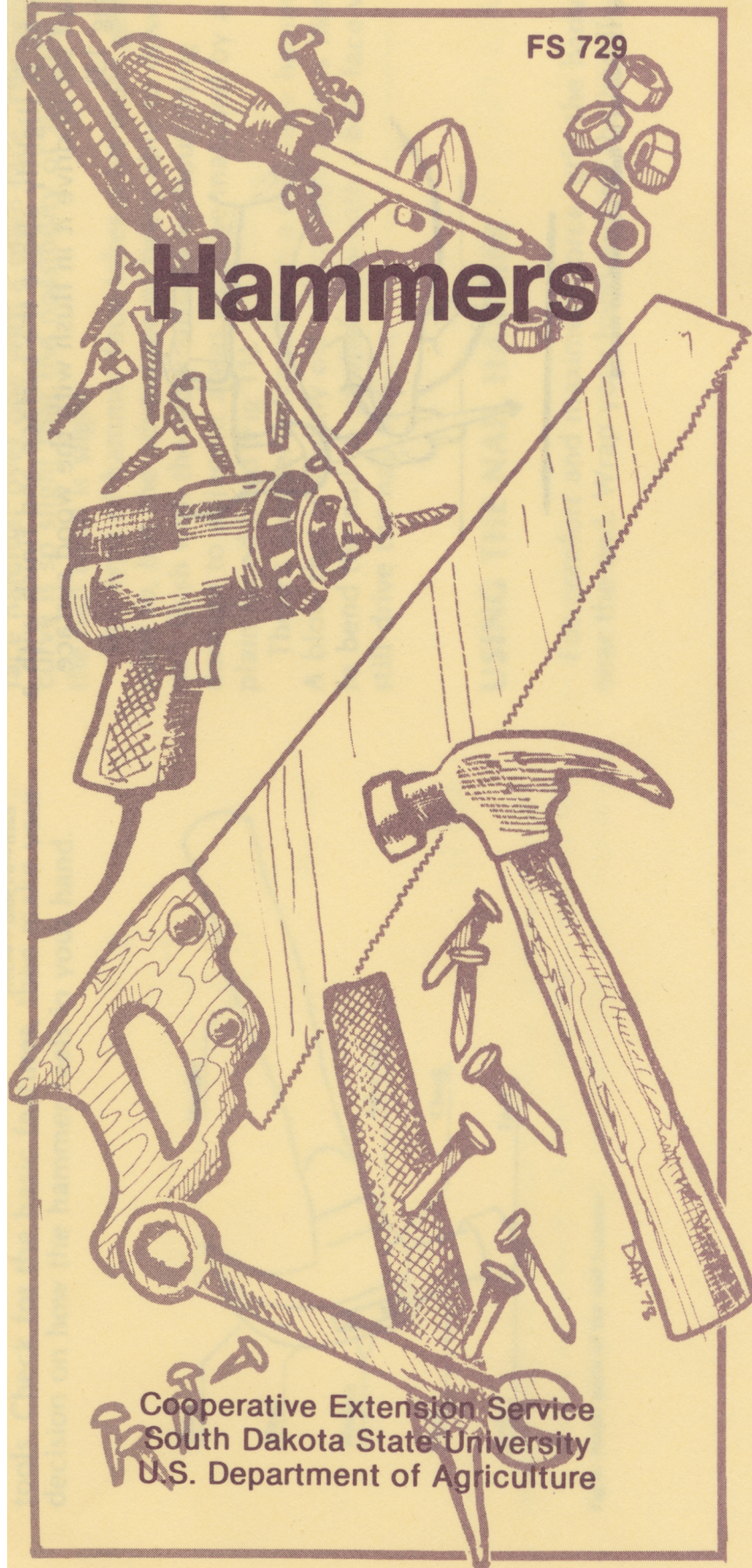
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FS 729

Hammers



Cooperative Extension Service
South Dakota State University
U.S. Department of Agriculture

Hammers

Mary Ann Sward
Extension housing specialist

The first hammers were probably fist sized rocks. At some point, someone realized the rock could be fastened to the end of a small branch, more force could be exerted, and fewer fingers would be smashed.

Although the hammers on the market today have come a long way from the original rocks, they still operate the same way—by maximizing the pendulum action caused by the force of gravity.

The difference now is that there are many different designs of hammers for different tasks. Remember that as you select a hammer.

USE HAMMER THAT FITS THE JOB

A hammer is not an all-purpose tool. Using a hammer for other than its specific task is not only inefficient; such usage can also be hazardous—you risk chipping the hammer and causing eye or body injury.

CLAW HAMMER

The nail hammer most useful in general woodworking is the 16-oz claw hammer. Weights can range from as little as 7 to as much as 20 oz; add special weights later on as you need them.

The claws on hammers are either curved or straight. Curved (Fig 1) are better for pulling nails; straight (Fig 2) are better for ripping boards apart.

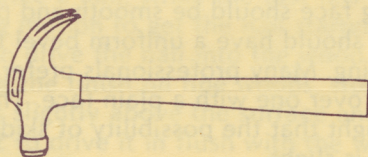


Fig 1. Claw hammer with curved claws

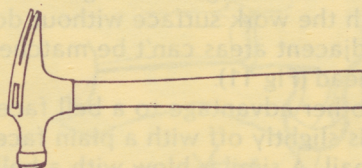


Fig 2. Claw hammer with straight claws

BALL PEEN HAMMER

A ball peen is recognized by its rounded head (Fig 3). Since such hammers are used for light to heavy

metal work, they should be tempered for maximum hardness and resistance to breakage. These hammers are used to drive specially hardened masonry nails, a job which should not be attempted with a claw hammer.

TACK HAMMER

A tack hammer is designed to drive light fasteners such as tacks or brads. Buy one with a magnetized head so it will hold the tack to get it started and you won't have to use your fingers (Fig 4).

MALLETS

These hammers have soft faces so you won't damage the tool you are striking. These hammers are most frequently used for driving wood chisels. Although wooden mallets are still available, plastic faced are more common and more durable (Fig 5).

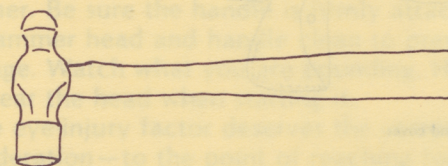


Fig 3. Ball peen hammer

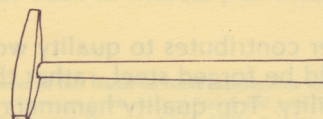


Fig 4. Tack hammer

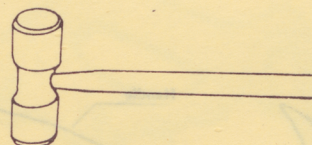


Fig 5. Mallet

MASH

These have a 2-, 3-, or 4-lb head and are used mainly for driving a masonry nail. To drive a hardened masonry nail into concrete, the nail must be struck

with a heavy enough object so it doesn't bounce back. The mash is also used with a brick chisel for scoring and cutting bricks, and with a cold chisel. (Fig 6).

AXE

Often called a camp axe, this tool is also a variation of the hammer (Fig 7). A cover is especially important for protecting the cutting edge (and you).

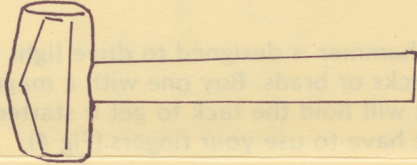


Fig 6. Mash

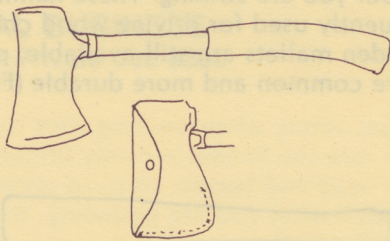


Fig 7. Axe and cover

QUALITY IS WORTH LOOKING FOR

A good hammer contributes to quality work. The head (Fig 8) should be forged steel, rather than cast, for greater durability. Top quality hammers may have handles of wood, steel, or fiberglass.

A hammer is a more personal thing than most tools. Check for the basic features, then make your decision on how the hammer feels in your hand.

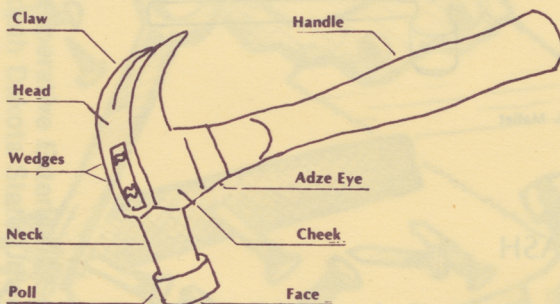


Fig 8. Major parts of the nail hammer

The overall appearance should show good craftsmanship. A good finish should not have rough edges or metal burrs. If the handle is wood, it should be straight-grained hickory. The head of a quality wooden handled hammer should be attached with one wooden wedge and two steel ones (Fig 9). Steel and fiberglass handles transmit vibrations to your hand more than wood handles, which is one reason they usually come with rubber grips.

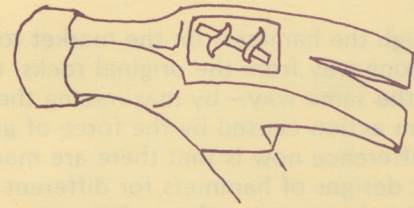


Fig 9. Wedges attaching head to handle

Look for claws which have been ground at the end so they fit narrow spaces between nails and wood surfaces. The split in the claw should be beveled so it can bite into the shank of a nail (Fig 10).

The neck angle should be deep enough to allow the hammer to hang plumb when hung for storage.

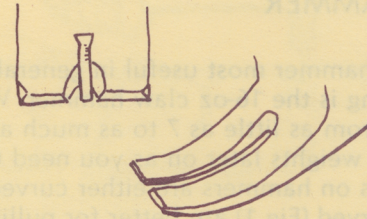


Fig 10. Beveled split in claws

The striking face should be smooth and polished, and its edges should have a uniform bevel to guard against chipping. Many professionals prefer a bell face hammer over one with a plain face. The bell curve is so slight that the possibility of skidding on the nail head is slight.

This type of hammer face takes a bit more getting used to, but the advantage of being able to drive a nail flush with the work surface without doing damage to adjacent areas can't be matched by a plain faced head (Fig 11).

There's another advantage to a bell face hammer. A blow that is slightly off with a plain face is likely to bend the nail. A similar blow with a bell face will still drive the nail straight.

USING THE NAIL HAMMER

For comfort and maximum force, grip the hammer near the end. Wrap your hand around the handle

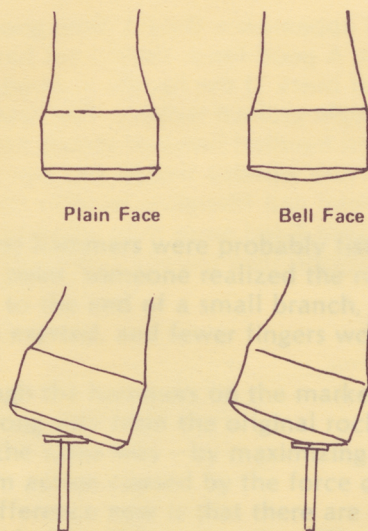


Fig 11. Types of striking faces

butt to cheek—that is, with the butt of the handle against the cheek of your hand. Use wrist and arm motion to drive the blows (Fig 12).

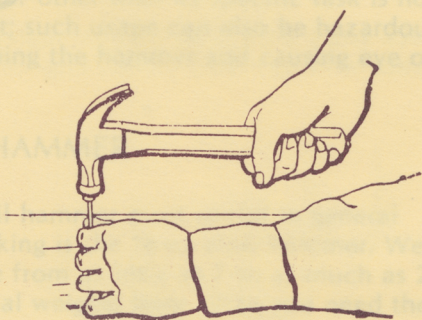


Fig 12. Proper hammer grip

To drive a nail, strike the first few times with a tapping motion to get the nail started. Use more force to drive the nail into the wood. To avoid marring the finish on fine woods, stop when the nail head is slightly above the surface and finish with a nail set to drive it in flush with the wood surface (Fig 13).

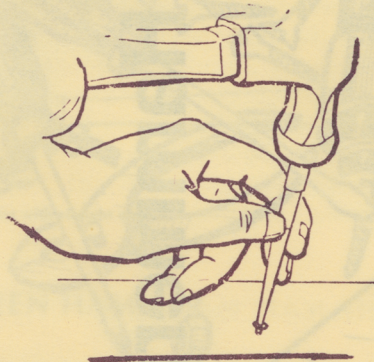


Fig 13. Nail set to finish work without marring

To remove a nail, use the claw end of the hammer. Insert the claw of the hammer under the nail head and pull the handle toward you. When the handle of the hammer is nearly perpendicular to the board, relieve unnecessary strain on the handle and increase leverage (making it easier to draw the nail) by placing a small block of wood under the head (Fig 14).

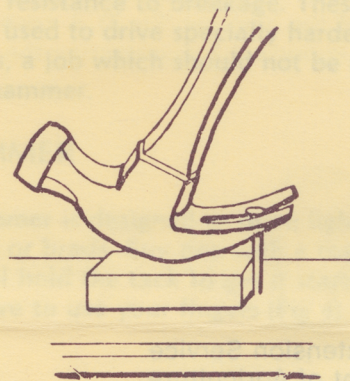


Fig 14. Wood block to increase leverage in pulling

SAFETY

Don't forget safety when working with your new hammer. Be sure the handle is firmly attached. Keep the hammer head and handle clean to prevent slippage. Watch what you are pounding. Hold the nail near the head when starting it.

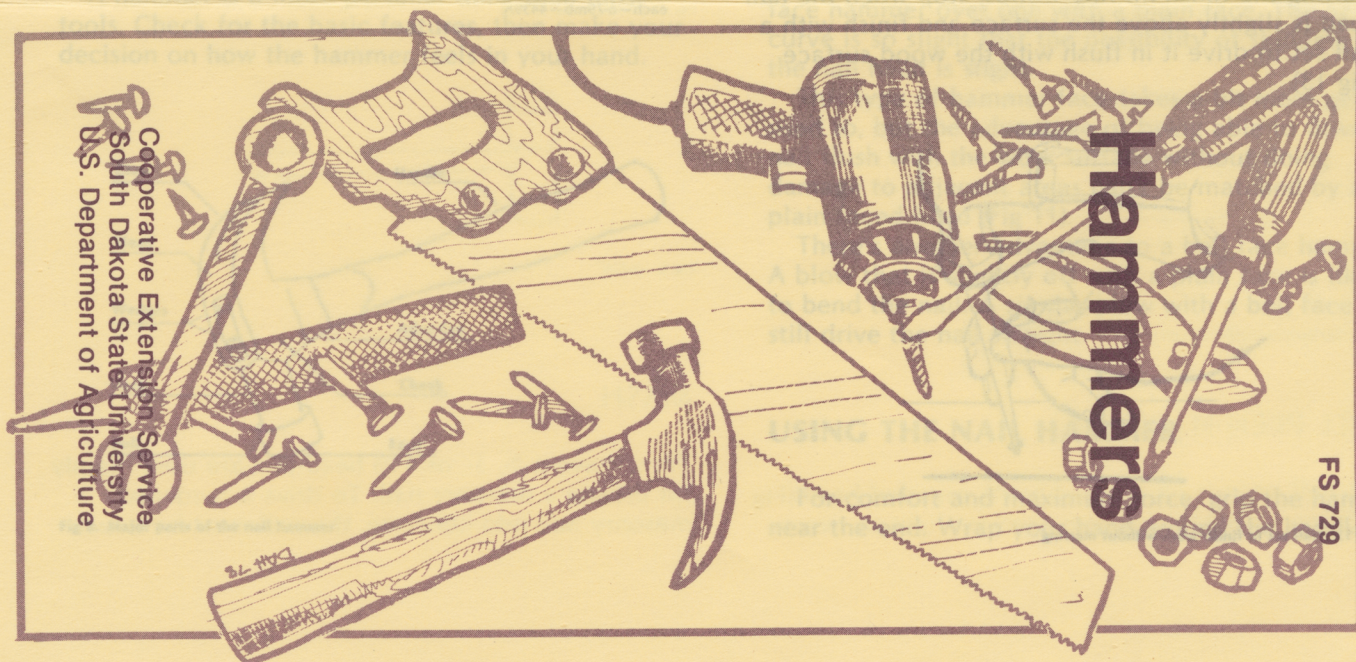
The eye-injury factor deserves the utmost consideration—to the point of reaching for safety goggles every time you reach for a hammer. This is particularly important when working on non-wood surfaces such as masonry or metal.

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